remedies which act on the encephalon, as well as by those which act on the medulla spinalis. In the first case, it is due to the torpor which the narcotic substances produce in the nerves of the third pair destined for the motion of the circular fibres of the iris, by which these antagonize the radiated fibres receiving their motor power from the cervical nerves. In the second case, the midriasis depends upon the spasm or excess of excitement of these last nerves. —*Brit. & For. Med.-Chir. Rev.*, from *Gaz. Med. di Milano*, No. 46, 1847.

SURGICAL PATHOLOGY AND THERAPEUTICS AND OPERATIVE SURGERY.

39. *Hospital Gangrene.*—Mr. GUTHRIE terminates a very interesting lecture on Hospital Gangrene, with the following conclusions:—

1st. Hospital gangrene never occurs in isolated cases of wounds.

2d. It originates only in badly-ventilated hospitals crowded with wounded men, among and around whom cleanliness has not been too well observed.

3d. It is a morbid poison remarkably contagious, and is infectious through the medium of the atmosphere applied to the wound or ulcer.

4th. It is possibly infectious, acting constitutionally, and producing great derangement of the system at large, although it has not been satisfactorily proved that the constitutional affection is capable of giving rise to local disease, such as an ulcer; but if an ulcer should occur from accidental or constitutional causes, it is always influenced by it when in its concentrated form.

5th. The application of the contagious matter gives rise to a similar local disease, resembling and capable of propagating itself, and is generally *followed* by constitutional symptoms.

6th. In crowded hospitals the constitutional symptoms have been sometimes observed to precede, and frequently to accompany, the appearance of the local disease.

7th. The local disease attacks the cellular membrane principally, and is readily propagated along it, laying bare the muscular, arterial, nervous, and other structures, which soon yield to its destructive properties.

8th. The sloughing of the arteries is rarely attended by healthy inflammation, filling up their canals by fibrine, or by that gangrenous inflammation which attends on mortification from ordinary causes, and alike obliterates their cavities. The separation of the dead parts is therefore accompanied by hemorrhage, which in large arteries is usually fatal.

9th. The operation of placing a ligature on the artery at a distance, or near the seat of mischief, does not succeed, from the incision being soon attacked with disease, unless it has been arrested in the individual part first affected, and the patient has been separated from all others affected by it.

10th. The local disease is to be arrested by the application of the actual or potential cautery. An iron heated red-hot, or the mineral acids pure, or a solution of arsenic or of the chloride of zinc, or other caustic which shall penetrate the sloughing parts, and destroy a thin layer of the unaffected part beneath them.

11th. After the diseased parts have been destroyed by the actual or potential cautery, they cease in a great measure to be contagious, and the disease incurs less chance of being propagated to persons having open wounds or ulcerated surfaces. A number of wounded thus treated are less likely to disseminate the disease than one person in whom constitutional treatment alone has been tried.

12. The pain and constitutional symptoms occasioned by the disease, and considered as distinct from these symptoms which may be dependent on disease endemic in the country, are all relieved, and sometimes entirely removed, by the destruction of the diseased surface; which must, however, be carefully and accurately followed to whatever distance and into whatever parts it may extend, if the salutary effect of the remedies is to be obtained.

13th. On the separation of the sloughs, the ulcerated surfaces are to be treated according to the ordinary principles of surgery. They cease to eliminate the contagious principle, and do not require a specific treatment.

14th. The constitutional or febrile symptoms, whenever or whatever time they occur, are to be treated according to the nature of the fever they are supposed to represent, and especially by emetics, purgatives, and the early abstraction of blood if purely inflammatory, and by less vigorous means if the fever prevailing in the country is of a different character.

15th. The essential preventive remedies are separation, cleanliness, and exposure to the open air—the first steps towards that cure which cauterization will afterwards in general accomplish.—*Lancet,* Dec. 30, 1849.

40. *Pathological Researches into the Diseases of the Ear.* By Joseph Toynbee, F.R.S. (Proceedings of Royal Med.-Chirurg. Soc., Feb. 15.)—This paper contains the results of 915 dissections, which are classified as follows:—

Ears of persons known to be deaf	184
Ears of persons supposed to be deaf	70
Ears in the stage of incipient deafness	358
Ears in a healthy state	303
Total	915

After some introductory observations, the author enters upon an examination of the state of each of the structures composing the organ of hearing. The most frequent pathological condition of the membrana tympani consists in a thickening of its internal and middle layers, the deposit in its substance of calcareous matter, its adhesion with or without the presence of membranous bands to the inner wall of the tympanic cavity, and the destruction of more or less of its substance by ulceration. In the tympanic cavity, the diseases most frequently present are, a thickened state of the mucous membrane, membranous bands which connect together the ossicula, deposits of mucous, purulent, scrofulous, and calcareous matter. Anchylosis of the stapes to the fenestra ovalis occurred in twenty-six instances. One of the interesting results of these dissections is the rarity of disease in the Eustachian tube; in the 612 dissections of diseased ears, only twenty-one disclosed traces of disease in that portion of the organ of hearing. The author pointed out the agreement that exists between the diseased condition described, and the history and symptoms of deaf patients during life, and expressed his conviction that when rational plans of treatment, founded upon pathological research, are fully carried out by intelligent medical men, this branch of surgery will be rescued from the uncertainty which at present attaches to it. The author concluded his paper by pointing out the intimate connection which exists between different parts of the organ of hearing and the brain, its membranes and other important organs.

Mr. Toynbee, at the conclusion of his paper, was questioned by a great number of the fellows on various points connected with disease of the ear. It will not be necessary to give the questions and answers in detail, but the subjoined epitome of the answers will convey the entire meaning of the author of the paper.

1. The treatment of chronic inflammation and thickening of the mucous membrane lining the tympanic cavity consists in the use of leeches, followed by an ointment, composed of a drachm of powdered cantharides to an ounce of simple ointment, or of the tincture of iodine, below the ears, and as near to the tube as possible. To the outer half or two-thirds of the external meatus a solution of nitrate of silver is to be applied every third or fourth day; the salt is to be dissolved in water, and its strength may vary from half a drachm to a drachm of the salt to an ounce of water. In some cases, the surface of the membrana tympani is to be washed with a weak solution of the nitrate of silver, from four to six grains to an ounce of water. Where the mucous membrane of the fauces is thick or relaxed, astringent applications should be made. Small doses of blue pill, the bichloride of mercury, or mercury with chalk, should be administered, not with the object of producing salivation, or any depression of the system, but to aid the local applications in promoting absorption. Warm bath-